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99-17

March 5, 1999

Mr. Dale Hatfield
Chief – Office of Engineering and Technology
Federal Communications Commission
2000 M Street, NW
Room 480
Washington, DC 20554

Re: Final Service Outage Report

Dear Mr. Hatfield:

In accordance with the requirements in CC Docket 91-273, enclosed is the Final Service Disruption Report for the Bell Atlantic service outage affecting Southern Manhattan in New York City, New York, which occurred on February 3, 1999.

Please call me if you have any questions about this report or other service outage issues.

Sincerely,

Enclosure

cc: R. Kimball

BELL ATLANTIC – NEW YORK
FCC NETWORK DISRUPTION
FINAL SERVICE DISRUPTION REPORT

This Final Service Disruption Report is filed by Bell Atlantic on behalf of its telephone operating company, Bell Atlantic-New York (BA-NY), in accordance with Section 63.100 of the Commission's Rules in the Second Report and Order in CC Docket 91-273, 9 FCC Rcd 3911 (1994), as revised by the Order on Reconsideration, released October 30, 1995, 10 FCC Rcd 11764 (1995). Bell Atlantic filed an Initial Report on February 3, 1999 notifying the Commission of an outage that occurred on February 3, 1999 affecting Southern Manhattan in New York City, New York.

On Wednesday, February 3, 1999, from approximately 10:00 AM to 12:30 PM, Hylan-Datacom, a subcontractor for Time Warner, was working in a manhole in southern Manhattan. At 11:07 AM, the Network Operations Center (NOC) received numerous alarms indicating multiple T4X failures. An analysis of the data determined that eight T4s with a total of 72 DS-3s had failed. Carrier technicians were dispatched to the Broad Street Central Office to take Optical Time Domain Reflectometer (OTDR) readings and Cable Maintenance was notified of a possible cable problem.

With the assistance of Technical Support, the NOC began patching the systems at the fiber level. The first system was patched at 1:45 PM and complete restoration was accomplished by 5:55 PM. The trouble was located at 12:43 PM when it was discovered that a fiber cable was torn and completely pulled out of the splice at one end. The exposed ribbons were discovered dangling in the manhole. Preparation for splicing the cable began immediately thereafter.

Hylan-Datacom had requested access to the manhole in order to prepare a conduit for the future placement of a fiber cable. They opened the manhole and after pumping water out for a lengthy period of time entered the manhole. They performed a survey and concluded that no additional work needed to be performed. At that time, Hylan-Datacom removed the pump and closed the manhole.

Date of Incident:

Wednesday, February 3, 1999

Time of Incident:

11:07 AM

Duration of Outage:

6 Hours, 48 Minutes

Geographic Area Affected:

Southern Manhattan, New York City, New York

Estimated Number of Customers Affected:

. This outage affected the equivalent of approximately 140,000 access lines

Type of Services Affected:

This outage affected switched interLATA and intraLATA calls, as well as data services.

Estimated Number of Blocked Calls:

Bell Atlantic estimates there were approximately 85,500 blocked calls as a result this failure.

Cause of the Incident, Including Name and Type of Equipment Involved and Specific Part(s) of the Network Affected:

Root Cause Analysis:

Direct Cause: The fiber cut in the manhole was the direct cause of this service disruption.

Affected Element: Eight T4X's consisting of approximately 72 DS-3's failed.

Outage Cause: The root cause of this outage was the breaking of the fiber by the contractor while using improper manhole procedures.

Duration Cause: The following factors contributed to the duration of this outage:

- The contractor failed to notify Bell Atlantic of the break and its location, which extended the length of the outage.
- Approximately four feet of water in the manhole had to be pumped out before splicing could begin. The amount of water in the manhole was due to tidal activity.

Root Cause Finding:

The root cause of this outage is that the contractor, who had been made aware in the past of the MOP, failed to use proper manhole procedures.

Methods Used to Restore Service:

The 72 T3s were patched beginning at 1:45 PM with the last system being restored at 5:55 PM. Once the fiber cut was located, the severed cable was spliced by 7:15 PM. The systems were moved back onto the repaired fiber on February 6, 1999.

Current or Proposed Company Practices Related to this Outage:

The Company has an approved Method of Procedure referenced as "Manhole Discipline and Damage Prevention."

Network Reliability Council "Best Practices" That Relate To This Incident:

The following "Best Practice" recommended by the FCC's Network Reliability Council's publication, June 1993, *A Report to the Nation*, applies to this outage: Section A, Paragraph 6.1.3, Best Practices To Prevent Fiber Cable Damage Caused By Other Than Digging. The recommendations are "adherence to procedures," that is, utilizing and benefiting from existing standards and procedures, and "contractor awareness" which can include published literature and announcements by facility owners to educate contractors, right-of-way owners and private property owners.

Describe How The NRC Recommendation(s) Could Have Prevented This Outage:

Bell Atlantic did adhere to the NRC recommendations with a detailed MOP, however the subcontractor neglected to follow this procedure.

Steps Taken to Prevent Recurrence:

1. Empire City Subway (ECS), issued a written notice on February 5, 1999 to both Hylan-Datacom (subcontractor to Time Warner) and Time Warner (ECS Tenant). This notice addressed both manhole discipline and damage prevention procedures and also stressed that failure to comply may lead to being barred from working in ECS's system.

2. ECS has held a meeting with Hylan-Datacom and other contractors to further reiterate what was mentioned in the written notice.

3. ECS initiated a quality audit process where ECS inspectors would conduct daily work location spot audits. Each contractor at the meeting welcomed the audit process and agreed to work closely with ECS to provide locations on a daily basis.